

REMARKS/ARGUMENTS

Claims 1-21 are pending in this application. By this Amendment, claims 1, 14 and 15 are amended, and claim 21 is added. Support for the claims can be found throughout the specification, including the original claims and the drawings. Withdrawal of the rejections in view of the above amendments and the following remarks is respectfully requested.

I. Allowable Subject Matter

The Examiner is thanked for the indication that claims 9-11 would be allowable if rewritten in independent form. New independent claim 21 includes the allowable features of claim 9. Thus, new independent claim 21 should be in condition for allowance.

It is noted that the Office Action rejects claims 14-20 under 35 U.S.C. §112, first paragraph, but does not otherwise reject claims 14-20 over art. It is assumed, for purposes of this reply, that upon withdrawal of the rejection of claims 14-20 under 35 U.S.C. §112, first paragraph, claims 14-20 should also be in condition for allowance.

II. Rejection Under 35 U.S.C. §112, First Paragraph

The Office Action rejects claims 14-20 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicant respectfully submits that claims 14-20 would be well understood by one of ordinary skill in the art based on at least paragraphs 50-56 of the present application, which clearly describe how the sensing unit 66 senses a position of the valve 50 based on the sensing unit's 66 contact with a particular portion of the cam 64 that rotates with the valve 50. However, merely to expedite prosecution of the

application, Applicant has amended independent claim 14 in response to the Examiner's specific comments in the Office Action. It is respectfully submitted that independent claim 14 meets the requirements of 35 U.S.C. §112, first paragraph, and thus the rejection of claims 14-20 under 35 U.S.C. §112, first paragraph, should be withdrawn.

It is noted that claims 14-20 are not otherwise rejected over art. Thus, it is assumed, for purposes of this reply, that upon withdrawal of the rejection of claims 14-20 under 35 U.S.C. §112, first paragraph, claims 14-20 should be in condition for allowance.

III. Rejection Under 35 U.S.C. § 102(b)

The Office Action rejects claims 1, 2, 12 and 13 under 35 U.S.C. § 102(b) over European Patent No. 0795292 to Fumagalli (hereinafter "Fumagalli"). The rejection is respectfully traversed.

Independent claim 1 is directed to a dishwasher. Independent claim 1 recites, *inter alia*, a valve rotatably installed at a connection portion between a supply pipe and upper and lower pipes, wherein the valve selectively opens/closes the supply pipe and the upper and lower pipes. Independent claim 1 also recites a driver coupled to the valve, wherein the driver determines a first position of the valve and causes the valve to rotate to a second position based on the determined first position. Fumagalli neither discloses nor suggests the features of independent claim 1, or the claimed combination of features.

Fumagalli discloses a pair of rotating spray devices 11, 12 positioned in a wash chamber 1. A diverting unit 6 driven by a motor 7 controls the flow of water to these spray devices 11, 12

through a set of ducts 47, 48 and corresponding manifolds 17, 18 as appropriate. Fumagalli discloses that the diverting unit 6 (compared in the Office Action to the claimed valve) employs some type of rotatable cylinder driven by the motor 7, and that the diverting unit 6 has four different angular positions (see column 5, lines 49-59 of Fumagalli). A level detector 9 monitors a water level and signals a programmer 10 to activate a solenoid valve 8, a pump motor 5, and the motor 7 as appropriate based on a particular phase of a wash cycle (see column 4, lines 14-18 of Fumagalli). However, Fumagalli neither discloses nor suggests how the motor 7 is coupled to the diverting unit 6, nor how the motor 7 causes the diverting unit 6 to move amongst these four angular positions. Fumagalli neither discloses nor suggests that the motor 7 is coupled to the diverting unit 6 in a manner that allows the motor 7 to determine at which of these four angular positions the diverting unit 6 is at, nor to move the diverting unit 6 to the next position based on such a determination. Thus, Fumagalli neither discloses nor suggests a driver as recited in independent claim 1.

It is respectfully submitted that there is structural support in independent claim 1 for a driver that determines a first position of the valve and causes the valve to rotate to a second position based on the determined first position. More specifically, it is through the claimed coupling of the claimed driver to the claimed valve that the driver is able to make such a determination and move the valve accordingly.

Further, MPEP 2173.05(g) states:

"[A] functional limitation must be evaluated and considered, just like any other limitation of the

claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step.”

MPEP 1273.05(g) further states:

“[I]n a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as “members adapted to be positioned” and “portions...being resiliently dilatable whereby said housing may be slidably positioned” serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976).”

As set forth above, and in keeping with the guidance provided in MPEP 2173.05(g), it is respectfully submitted that the claimed coupling between the driver and the valve serves to define certain structural attributes associated with this coupling which enable the driver to move the valve as claimed. Thus, if the driver and the valve, and the coupling therebetween, is considered in this light, again, it is respectfully submitted that Fumagalli neither discloses nor suggests that the motor 7 is coupled to the diverting unit 6 in a manner that allows the motor 7 to determine at which of these four angular positions the diverting unit 6 is at, nor to move the diverting unit 6 to the next position based on such a determination, as is the driver recited in independent claim 1.

Accordingly, it is respectfully submitted that independent claim 1 is not anticipated by Fumagalli, and thus the rejection of independent claim 1 under 35 U.S.C. §102(b) over Fumagalli should be withdrawn. Dependent claims 2, 12 and 13 are allowable at least for the reasons set

forth above with respect to independent claim 1, from which they depend, as well as for their added features.

IV. Rejection Under 35 U.S.C. §103(a)

The Office Action rejects claims 1-8 under 35 U.S.C. § 103(a) over U.S. Patent No. 2,597,359 to McDonald et al. (hereinafter “McDonald”). The rejection is respectfully traversed.

The features of independent claim 1 are as set forth above. McDonald neither discloses nor suggests the features of independent claim 1, or the claimed combination of features.

McDonald discloses a dishwasher in which the flow of water from a return chamber 38 to upper and lower spray devices 10, 12 is controlled by a valve 52. The valve 52 is positioned between a supply pipe 18 and a lower manifold 16. Reciprocation of a piston 54 within a cylinder 56 operates the valve 52 to alternate a supply of water to the upper and lower spray devices 10, 12. A position of the valve 52 is established based on a position of the piston 54 in the cylinder 56, which is, in turn, controlled by the rotation of a series of cams 84, 88, 94 driven by a motor 82 and the subsequent flow of water the upper or lower end of the cylinder 56. McDonald neither discloses nor suggests that the piston 54, cylinder 56 and motor 82 (collectively compared in the Office Action to the claimed driver) are coupled to the valve 52 in a manner that allows the piston 54, cylinder 56 and motor 82 to determine a first position of the valve 52, nor to cause the valve 52 to rotate to a second position based on the determined first position, as recited in independent claim 1.

Further, it would not have been obvious to modify the dishwasher disclosed by

McDonald as suggested in the Office Action. In particular, it would not have been obvious to modify the valve 52, piston 54, cylinder 56, motor 82, and various cams, conduits and additional valves disclosed by McDonald to include a driver and valve as recited in independent claim 1. Such a modification would require a significant amount of additional structure associated with the valve 52 itself, as well as additional structure that would provide some type of related positional information back to the motor 82. This would also require that the motor 82 be modified to include the capacity to use this positional information to determine a current position of the valve 52, determine a new position of the valve 52 based on the current position, and then move the valve 52 to the new position. It is respectfully submitted that the additional structure required to effect a coupling between the valve 52 and the driving elements disclosed by McDonald would add significant cost and complexity to McDonald's design. Thus, one of ordinary skill in the art would not have been motivated to make such a modification.

For all of these reasons, it is respectfully submitted that independent claim 1 is allowable over McDonald, and thus the rejection of independent claim 1 under 35 U.S.C. §103(a) over McDonald should be withdrawn. Dependent claims 2-8 are allowable at least for the reasons set forth above with respect to independent claim 1, from which they depend, as well as for their added features.

V. New Claim 21

New claim 21 is added to the application. It is respectfully submitted that new claim 21 meets the requirements of 35 U.S.C. §112, and also defines over the applied prior art. More

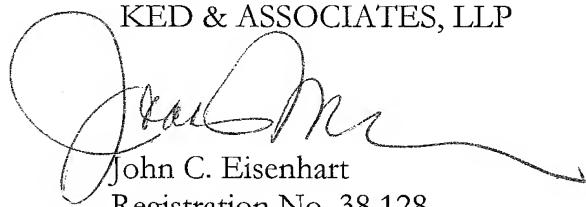
specifically, as set forth above, new claim 21 includes the allowable features of claim 9, and thus should be in condition for allowance.

VI. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned, **Joanna K. Mason**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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